

**COMBINED DECLARATION AND POWER OF ATTORNEY**(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL,  
CONTINUATION OR C-I-P)

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As a below named inventor, I hereby declare that:

**TYPE OF DECLARATION**

This declaration is of the following type:

(check one applicable item below)

original.  
 design.  
 supplemental.

NOTE: IF THE DECLARATION IS FOR AN INTERNATIONAL APPLICATION BEING FILED AS A DIVISIONAL, CONTINUATION OR CONTINUATION-IN-PART APPLICATION, DO NOT CHECK NEXT ITEM; CHECK APPROPRIATE ONE OF LAST THREE ITEMS.

national stage of PCT.

NOTE: IF ONE OF THE FOLLOWING 3 ITEMS APPLY, THEN COMPLETE AND ALSO ATTACH ADDED PAGES FOR DIVISIONAL, CONTINUATION OR C-I-P.

divisional.  
 continuation.  
 continuation-in-part (C-I-P).

**INVENTORSHIP IDENTIFICATION**

WARNING: IF THE INVENTORS ARE EACH NOT THE INVENTORS OF ALL THE CLAIMS, AN EXPLANATION OF THE FACTS, INCLUDING THE OWNERSHIP OF ALL THE CLAIMS AT THE TIME THE LAST CLAIMED INVENTION WAS MADE, SHOULD BE SUBMITTED.

My residence, post office address and citizenship are as stated below, next to my name. I believe that I am the original, first and sole inventor (IF ONLY ONE NAME IS LISTED BELOW) or an original, first and joint inventor (IF PLURAL NAMES ARE LISTED BELOW) of the subject matter that is claimed, and for which a patent is sought on the invention entitled:

**TITLE OF INVENTION****REACTION AND SEPARATION METHODS**

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SPECIFICATION IDENTIFICATION

the specification of which:

(complete (a), (b) or (c))

(a) [ ] is attached hereto.

(b) [x] was filed on February 18, 2000, as [ ] Serial No. 09/506,779  
or [ ] Express Mail No. \_\_\_\_\_, as Serial No. not yet known  
and was amended on \_\_\_\_\_ (IF APPLICABLE).

NOTE: AMENDMENTS FILED AFTER THE ORIGINAL PAPERS ARE DEPOSITED WITH THE PTO  
THAT CONTAIN NEW MATTER ARE NOT ACCORDED A FILING DATE BY BEING  
REFERRED TO IN THE DECLARATION. ACCORDINGLY, THE AMENDMENTS INVOLVED  
ARE THOSE FILED WITH THE APPLICATION PAPERS OR, IN THE CASE OF A  
SUPPLEMENTAL DECLARATION, ARE THOSE AMENDMENTS CLAIMING MATTER NOT  
ENCOMPASSED IN THE ORIGINAL STATEMENT OF INVENTION OR CLAIMS. SEE 37  
CFR 1.67.

(c) [ ] was described and claimed in PCT International Application No.  
\_\_\_\_\_, filed on \_\_\_\_\_ and as  
amended under PCT Article 19 on \_\_\_\_\_ (IF ANY).

ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the  
above-identified specification, including the claims, as amended by any  
amendment referred to above.

I acknowledge the duty to disclose information, which is material to  
patentability as defined in 37, Code of Federal Regulations, S 1.56,

(also check the following items, if desired)

[x] and which is material to the examination of this application,  
namely, information where there is a substantial likelihood that a  
reasonable Examiner would consider it important in deciding whether  
to allow the application to issue as a patent, and

[ ] in compliance with this duty, there is attached an information  
disclosure statement, in accordance with 37 CFR 1.98.

PRIORITY CLAIM (35 U.S.C. S 119(a)-(d))

I hereby claim foreign priority benefits under Title 35, United States Code,  
S 119(a)-(d) of any foreign application(s) for patent or inventor's  
certificate or of any PCT international application(s) designating at least  
one country other than the United States of America listed below and have also  
identified below any foreign application(s) for patent or inventor's  
certificate or any PCT international application(s) designating at least one  
country other than the United States of America filed by me on the same  
subject matter having a filing date before that of the application(s) of which  
priority is claimed.

(complete (d) or (e))

(d) [x] no such applications have been filed.

(e) [ ] such applications have been filed as follows.

NOTE: WHERE ITEM (C) IS ENTERED ABOVE AND THE INTERNATIONAL APPLICATION  
WHICH DESIGNATED THE U.S. ITSELF CLAIMED PRIORITY CHECK ITEM (E),  
ENTER THE DETAILS BELOW AND MAKE THE PRIORITY CLAIM.

PRIOR FOREIGN/PCT APPLICATION(S) FILED WITHIN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION  
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. S 119(a)-(d)

COUNTRY (OR INDICATE IF PCT)	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 37 USC 119
		[ ] YES	NO [ ]
		[ ] YES	NO [ ]
		[ ] YES	NO [ ]
		[ ] YES	NO [ ]
		[ ] YES	NO [ ]

CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)  
(34 U.S.C. S 119(e))

I hereby claim the benefit under Title 35, United States Code, S 119(e) of  
any United States provisional application(s) listed below:

PROVISIONAL APPLICATION NUMBER	FILING DATE
_____ / _____	_____
_____ / _____	_____
_____ / _____	_____

CLAIM FOR BENEFIT OF EARLIER US/PCT APPLICATION(S)  
UNDER 35 U.S.C. 120

[ ] The claim for the benefit of any such applications are set forth  
in the attached ADDED PAGES TO COMBINED DECLARATION AND POWER OF  
ATTORNEY FOR DIVISIONAL, CONTINUATION OR CONTINUATION-IN PART  
(C-I-P) APPLICATION.

ALL FOREIGN APPLICATION(S), IF ANY, FILED MORE THAN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION

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NOTE: IF THE APPLICATION FILED MORE THAN 12 MONTHS FROM THE FILING DATE OF THIS APPLICATION IS A PCT FILING FORMING THE BASIS FOR THIS APPLICATION ENTERING THE UNITED STATES AS (1) THE NATIONAL STAGE, OR (2) A CONTINUATION, DIVISIONAL, OR CONTINUATION-IN-PART, THEN ALSO COMPLETE ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR DIVISIONAL, CONTINUATION OR C-I-P APPLICATION FOR BENEFIT OF THE PRIOR U.S. OR PCT APPLICATION(S) UNDER 35 U.S.C. S 120.

**POWER OF ATTORNEY**

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

**Henry E. Bartony, Jr., Reg. No. 34,772**

(check the following item, if applicable)

[ ] Attached, as part of this declaration and power of attorney, is the authorization of the above-named attorney(s) to accept and follow instructions from my representative(s).

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**SEND CORRESPONDENCE TO**

Henry E. Bartony, Jr.  
Suite 1801  
Law & Finance Building  
429 Fourth Avenue  
Pittsburgh, PA 15219

**DIRECT TELEPHONE CALLS TO:**

Henry E. Bartony, Jr.  
Tel (412) 338-8632  
Fax (412) 338-6611

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**DECLARATION**

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SIGNATURE(S)

NOTE: Carefully indicate the family (or last) name, as it should appear on the filing receipt and all other documents.

Full name of sole or first inventor

Dennis \_\_\_\_\_ P.  
(GIVEN NAME) \_\_\_\_\_

\_\_\_\_\_  
(MIDDLE INITIAL OR NAME)

Curran  
FAMILY (OR LAST NAME)

Inventor's signature \_\_\_\_\_

Date 9/21/00 Country of Citizenship USA

Residence 506 S. Linden Avenue, Pittsburgh PA 15208 USA

Post Office Address 506 S. Linden Avenue, Pittsburgh PA 15208 USA

\*\*\*\*\*

Full name of second joint inventor, if any

Oscar \_\_\_\_\_ de Frutos Garcia  
(GIVEN NAME) \_\_\_\_\_ FAMILY (OR LAST NAME)

Inventor's signature \_\_\_\_\_

Date 9/20/2000 Country of Citizenship Spain

Residence C/Teruel 16, 2<sup>a</sup> C, 28020 Madrid, Spain

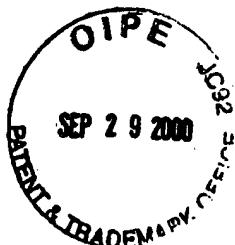
Post Office Address: C/Teruel 16, 2<sup>a</sup> C, 28020 Madrid, Spain

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## ADDITIONAL SIGNATURES

Full name of third joint inventor, if any

Yoji \_\_\_\_\_ Oderaoatoshi  
(GIVEN NAME) (MIDDLE INITIAL OR NAME) FAMILY (OR LAST NAME)

Inventor's signature Yoji OderaoatoshiDate 2000/9/21 Country of Citizenship JapanResidence: 201 Highroofshirakibaru, 1-12-13, Chuou, Onojo, Fukuoka, 816-0942 JapanPost Office Address 201 Highroofshirakibaru, 1-12-13, Chuou, Onojo, Fukuoka,  
816-0942 Japan

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Dennis P. Curran et al      Group No.: to be assigned  
Serial No.: 09/506,779      Examiner: to be assigned  
Filed: February 18, 2000

## REACTION AND SEPARATION METHODS

Box Missing Part  
Assistant Commissioner for Patents  
Washington, D.C. 20231



## COMPLETION OF FILING REQUIREMENTS

(check and complete this item, if applicable)

I.  This replies to the Notice to File Missing Parts of Application (PTO-1533)  
mailed April 24, 2000.

NOTE: If these papers are filed before the office letter issues, adequate identification of the original papers should be made, e.g., in addition to the name of the inventor and title of invention, the filing date based on the "Express Mail" procedure, the serial number from the return post card or the attorney's docket number added.

A copy of the Notice to File Missing Parts of Application-Filing Date Granted (Form PTO-1533) is enclosed.

NOTE: The PTO requires that a copy of Form PTO-1533 be returned with the response to the notice to file missing parts to the application.

## DECLARATION OR OATH

II.  No declaration or oath was filed. Enclosed is the original declaration or oath for this application.

OR

The declaration or oath that was filed was determined to be defective. A new original oath or declaration is attached.

NOTE: 37 CFR 1.41(a) points out that "Full names must be stated, including the family name and at least one given name without abbreviation together with any other given name or initial."

NOTE: For surcharge fee for filing declaration after filing date complete item VI(3) below.

NOTE: Acceptable minimums in the declaration for identification of the specification to which it applies are the name of the inventor and (1) serial number (2) attorney docket number which was on the application as filed and the filing date (3) title of the invention and filing date (4) title of invention and reference to a specification which is attached to the declaration at the time of execution and filed with the declaration or (5) title of invention and a statement by a registered attorney that the application filed in the PTO is the application which the inventor executed by signing the declaration. If identification (4) is used it must be accompanied by a statement that the "attached" specification is a copy of the specification and any amendments thereto which were filed in the PTO to obtain the filing date; such a statement must be a verified statement if made by a person not registered to practice before the PTO. Notice of September 12, 1983 -(1035 O.G. 3).

NOTE: Another minimum found acceptable in the declaration is the filing date (i.e., date of express mail) and the express mail number, useful where the serial number is not yet known. But note the practice where the express mail deposit is a Saturday, Sunday or holiday within the District of Columbia. 37 CFR 1.10(c).

(complete (c) or (d), if applicable)

Attached is a

- (c) [ ] Statement by a registered attorney that the application filed in the PTO is the application that the inventor executed by signing the declaration.
- (d) [ ] Statement that the "attached" specification is a copy of the specification and any amendments thereto that were filed in the PTO to obtain the filing date.

#### AMENDMENT CANCELLING CLAIMS

III.

[ ] Cancel claims \_\_\_\_\_ inclusive.

#### TRANSMITTAL OF ENGLISH TRANSLATION OF NON-ENGLISH LANGUAGE PAPERS

IV. [ ] Submitted herewith is a verified English translation of the non-English language application papers as originally filed. It is requested that this translation be used as the copy for examination purposes in the PTO.

NOTE: For fee processing a non-English application, complete item VI(5) below.

NOTE: A non-English oath or declaration in the form provided or approved by the PTO need not be translated. 37 CFR 1.69(b).

NOTE: The translation for a regular application filed in a foreign language must be verified. 37 CFR 1.52(d).

SMALL ENTITY STATUS

V.

A verified statement that this filing is by a small entity

NOTE: If an original verified statement and a refund request is filed within two months of the date of payment of a fee, then the excess fee paid will be refunded on request. 37 CFR 1.28(a).

(check and complete applicable items)

is attached.

- A separate refund request accompanies this paper.

was filed on \_\_\_\_\_ (original). A copy of the original verified statement is attached hereto.

COMPLETION FEES

VI.

WARNING: FAILURE TO SUBMIT THE SURCHARGE FEES WHERE REQUIRED WILL CAUSE THE APPLICATION TO BECOME ABANDONED. 37 CFR 1.53(D).

NOTE: The filing fees, fees for claims and surcharge fees listed below in items 1, 2 and 3 are reduced by 50% where proof of a small entity status is established on or before the date the fee is paid. If the full fee was paid but a verified statement is filed within 2 months of the date of timely payment of a fee then the excess fee paid will be refunded on request. 37 CFR 1.28(a).

1. Filing fee

original patent application  
(37 CFR 1.16(a)-\$760.00; Smallentity-\$380.00) \$ \_\_\_\_\_

design application  
(37 CFR 1.16(f)-\$310.00; smallentity-\$155.00) \$ \_\_\_\_\_  
\$ \_\_\_\_\_

2. Fees for claims

each independent claim in excess of 3  
(37 CFR 1.16(b)-\$78.00; smallentity-\$39.00) \$ \_\_\_\_\_

each claim in excess of 20  
(37 CFR 1.16(c)-\$18.00; smallentity-\$9.00) \$ \_\_\_\_\_

multiple dependent claim(s)  
(37 CFR 1.16(d)-\$260.00; smallentity-\$130.00) \$ \_\_\_\_\_

3. Surcharge fees

late payment of filing fee

and/or

late filing of original declaration or oath  
(37 CFR 1.16(e)-\$130.00; smallentity-\$65.00); \$ 65.00  
(verified statements of small entity status filed herewith)

NOTE: Even where a facsimile declaration or oath signed by the inventor(s) was part of the originally filed papers, the surcharge fee is

required.

NOTE: If both the filing fee and declaration or oath were missing from the original papers, only one surcharge fee for both need be paid. 37 CFR 1.16(e).

4. [ ] Petition and fee for filing by other than all the inventors or a person not the inventor

\$ \_\_\_\_\_

5. [ ] Fee for processing an application filed with a specification in a non-English language

\$ \_\_\_\_\_

6. [ ] Fee for processing and retention of application

\$ \_\_\_\_\_

7. [x] Assignment (See "ASSIGNMENT COVER SHEET".) \$40.00

NOTE: 37 CFR 1.21(l) establishes a fee for processing and retaining any application which is abandoned for failing to complete the application pursuant to 37 CFR 1.53(d) and this, as well as, the changes to 37 CFR 1.53 and 1.78 indicate that in order to obtain the benefit of a prior U.S. application, either the basic filing fee or the processing and retention fee of S 1.21(l) within 1 year of notification under S1.53(d) must be paid.

Total completion fees \$ 105.00

EXTENSION OF TIME

VII.

(COMPLETE (A) OR (B), AS APPLICABLE)

The proceedings herein are for a patent application, and the provisions of 37 CFR 1.136(a) apply.

(a) [x] Applicant petitions for an extension of time, the fees for which are set out in 37 CFR 1.17(a)-(d), for the total number of months checked below:

Extension (months)	Fee for other than small entity	Fee for small entity
[ ] one month	\$ 110.00	\$ 55.00
[ ] two months	\$ 380.00	\$190.00
[x] three months	\$ 870.00	\$435.00
[ ] four months	\$1,360.00	\$680.00

Fee \$ 435.00

If an additional extension of time is required please consider this a petition therefor.

(check and complete the next item, if applicable)

[ ] An extension for \_\_\_\_\_ months has already been secured, and the fee paid therefor of \$ \_\_\_\_\_ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$ 435.00

or

(b) [ ] Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

TOTAL FEE DUE

VIII.

The total fee due is

Completion fee(s) \$ 105.00

Extension fee (if any) \$ 435.00

Total Fee Due \$ 540.00

PAYMENT OF FEES

IX.

[x] Enclosed is a check in the amount of \$ 540.00

[ ] Charge Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_. A duplicate of this request is attached.

NOTE: Fees should be itemized in such a manner that it is clear for which purpose the fees are paid. 37 CFR 1.22(b).

AUTHORIZATION TO CHARGE ADDITIONAL FEES

X.

WARNING: ACCURATELY COUNT CLAIMS, ESPECIALLY MULTIPLE DEFENDANT CLAIMS, TO AVOID UNEXPECTED HIGH CHARGES IF EXTRA CLAIMS ARE AUTHORIZED.

[x] The Commissioner is hereby authorized to charge the following additional fees that may be required by this paper and during the pendency of this application to Account No.  
02-1065.

[x] 37 CFR 1.16(a), (f) or (g) (filing fees)

[x] 37 CFR 1.16(b), (c) and (d) (presentation of extra claims)

NOTE: Because additional fees for excess or multiple dependent claims not paid on filing or on later presentation must only be paid or these claims cancelled by amendment prior to the expiration of the time period set for response by the PTO in any notice of fee deficiency (37 CFR 1.16(d)), it might be best not to authorize the PTO to charge additional claim fees, except possibly when dealing with amendments after final action.

[x] 37 CFR 1.16(e) (surcharge for filing the basic filing fee and/or declaration on a date later than the filing date of the application)

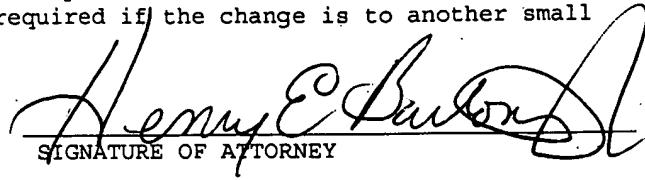
[x] 37 CFR 1.17 (application processing fees)

WARNING: WHILE 37 CFR 1.17(A), (B), (C) AND (D) DEAL WITH EXTENSIONS OF TIME UNDER S 1.136(A) THIS AUTHORIZATION SHOULD BE MADE ONLY WITH THE KNOWLEDGE THAT: "SUBMISSION OF THE APPROPRIATE EXTENSION FEE UNDER 37 CFR 1.136(A) IS TO NO AVAIL UNLESS A REQUEST OR PETITION FOR EXTENSION IS FILED." (EMPHASIS ADDED). NOTICE OF NOVEMBER 5, 1985 (1060 O.G. 27).

[ ] 37 CFR 1.18 (issue fee at or before mailing of Notice of Allowance, pursuant to 37 CFR 1.311(b))

NOTE: Where an authorization to charge the issue fee to a deposit account has been filed before the mailing of a Notice of Allowance, the issue fee will be automatically charged to the deposit account at the time of mailing the notice of allowance. 37 CFR 1.311(b).

NOTE: 37 CFR 1.28(b) requires "Notification of any change in loss of entitlement to small entity status must be filed in the application ... prior to paying, or at the time of paying ... issue fee". From the wording of 37 CFR 1.28(b): (a) notification of change of status must be made even if the fee is paid as "other than a small entity" and (b) no notification is required if the change is to another small entity.



SIGNATURE OF ATTORNEY

Reg. No. 34,772

Henry E. Bartony, Jr.

(TYPE OR PRINT NAME OF ATTORNEY)

Tel. No.: (412) 338-8632  
Fax. No.: (412) 338-6611

Law & Finance Building  
Suite 1801  
429 Fourth Avenue  
Pittsburgh, Pennsylvania 15219  
P.O. Address



CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: The Assistant Commissioner for Patents, Washington D.C. 20231.

On September 25, 2000



Henry E. Bartony Jr.  
Registration No. 34,772

September 25, 2000

Date

#3

Applicant or Patentee: DENNIS P. CURRAN ET ALApplication or Patent No.: 09/ 506,779Filed or Issued: February 18, 2000For: **REACTION AND SEPARATION METHODS****VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS (37 CFR 1.9(f)  
and 1.27(d)) -NONPROFIT ORGANIZATION**

I hereby declare that I am an official empowered to act on behalf of the nonprofit organization identified below:

Name of Organization University of Pittsburgh  
Address of Organization Cathedral of Learning  
Pittsburgh, PA 15260 U.S.A.

**TYPE OF ORGANIZATION**

University or Other Institution of Higher Education  
 Tax Exempt Under Internal Revenue Service Code (26 USC 501(a) and 501(c)(3))  
 Nonprofit Scientific or Educational Under Statute of State of the United States of America  
(Name of State \_\_\_\_\_)  
(Citation of Statute \_\_\_\_\_)  
 Would Qualify as Tax Exempt Under Internal Revenue Service Code (26 USC 501(a) and 501(c)(3)), if Located in the United States of America  
 Would Qualify as Nonprofit Scientific or Educational Under Statute of State of the United States of America if Located in the United States of America  
(Name of State \_\_\_\_\_)  
(Citation of Statute \_\_\_\_\_)

I hereby declare that the nonprofit organization identified above qualifies as a nonprofit organization, as defined in 37 CFR 1.9(e), for purposes of paying reduced fees under Sections 41(a) and (b) of Title 35, United States Code, with regard to the invention entitled

**REACTION AND SEPARATION METHODS**by inventor(s) DENNIS P. CURRAN ET AL

described in

I hereby declare that rights under contract or law have been conveyed to, and remain with, the nonprofit organization, with regard to the above identified invention.

If the rights held by the nonprofit organization are not exclusive, each individual, concern or organization having rights to the invention is listed below\* and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 CFR 1.9(d), or by any concern that would not qualify as a small business concern under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(e)

\*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27).

Name \_\_\_\_\_

Address \_\_\_\_\_

INDIVIDUAL       SMALL BUSINESS CONCERN       NONPROFIT ORGANIZATION

Name \_\_\_\_\_

Address \_\_\_\_\_

INDIVIDUAL       SMALL BUSINESS CONCERN       NONPROFIT ORGANIZATION

SEP 29 2000

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

Name of Person Signing \_\_\_\_\_ Frances J. Connell

Title in Organization \_\_\_\_\_ Director, Office of Technology Transfer and Intellectual Property

Address of Person Signing \_\_\_\_\_ 911 William Pitt Union  
Pittsburgh, PA 15260 U.S.A.

SIGNATURE Frances J. Connell Date 9/20/00